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EXAMINER

CASCA, FRED A

ART UNIT PAPER NUMBER

2687

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,122

Applicant(s)

CLINGERMAN ET AL.

Examiner

Fred A. Casca

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the Applicant regards as his invention.

2. Claims 14-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Consider **claims 14, 16 and 17**, the phrases “first type” and “second type” in claim 14, and the phrase “first type” in claims 16 and 17 renders the claims indefinite because the addition of the word “type” to an otherwise definite expression (e.g., cellular provider or terminal) extends the scope of the expression so as to render it indefinite (*Ex parte Copenhagen*, 109 USPQ 118 (Bd. App. 1955)). See MPEP § 2173.05(b).

Claim Rejections –35 U.S.C. 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2687

4. Claims 1-3, 7-8, 14, and 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kalavade et al., U.S. Pub. No. 2003/0051041 A1.

Referring to claim 1, Kalavade discloses a system for providing accounting for a wireless network (Abstract, and paragraphs 0003 and 0054, "billing"), the system including an access point connectable to a mobile client (FIGS. 9-10, and paragraphs 0207-0209, "user terminal", "access server"), a wireless integrated node connected to the access point and configured for providing and mapping between two different communication protocols (FIGS. 9-10, "CBG 10", note that the CBG is the wireless integrated node), and a link for connecting the wireless integrated node to a charging gateway and further to an accounting system, wherein the accounting system provides a bill for usage of the wireless network by the mobile client (FIGS. 9-10, and paragraphs 0210-0214, "GPRS Charging Gateway", "Billing/Mediation system"), wherein the first communication protocol is of a format required by the wireless network and the second communication protocol is of a format required by the accounting system (FIGS. 9-10, and paragraphs 0221-0222, and 0228, "RADIUS", "GPRS-compatible").

Referring to claim 2, Kalavade discloses the system of claim 1 wherein the wireless integrated node includes means for generating a call detail record for use with the second communication protocol (0228, "GPRS-compatible usage information").

Referring to claim 3, Kalavade discloses the system of claim 2 wherein the generating means maps RADIUS elements to the call detail record (FIGS. 9-10, note CBG generates GPRS-compatible usage information and RADIUS elements are provided

to the CBG, hence the generating means maps RADIUS elements to the call detail record).

Referring to claim 7, Kalavade discloses a method for generating call detail records in a format used with a mobile network for a client having an account with the mobile network and using a wireless local area network (FIGS. 9-10, Abstract, paragraphs 0003, 0054, and 0228, “billing”, “usage information”), the method comprising receiving a RADIUS **start** message from an access point (FIGS. 9-10, 0207, 0209, 0221, “RADIUS client sends an Accounting Request to the RADIUS server at the beginning and end of the user session”), generating a first Call Detail Record (CDR) from accounting information contained in the RADIUS start message (FIGS. 9-10, and paragraphs 0228-0231, “CBG generates GPRS-compatible usage information”), and sending the first CDR message to a charging gateway associated with the mobile network (FIGS. 9-10, and paragraphs 0228-0231, “This is sent to a GPRS charging gateway”).

Referring to claim 8, Kalavade discloses the method of claim 7 wherein the mobile network is a GPRS network and the charging gateway is capable of forwarding the first CDR to an accounting system of the GPRS network (FIGS. 9-10, paragraphs 0228, and 0233, “GPRS network”).

Referring to claim 14, Kalavade discloses an authentication server (Abstract, and 0056, “billing and authentication functions”, “CBG”) comprising a first link connected to an authenticator associated with a Wireless Local Area Network (WLAN) (FIGS. 9-10,

Art Unit: 2687

and paragraphs 0003 and 0054, 0207-0210, 0221, “login”, “password”, “access server”), a second link connected to a gateway associated with a mobile network (FIGS. 9-10, and paragraphs 0228, “charging gateway”), and a mapping system including instructions for receiving one or more first messages from the authenticator, the first messages being of a first type associated with the WLAN but not the mobile network (FIGS. 9-10, paragraphs 0054, 0056, 0068-0070, and 0089, “a Converged Billing/Authentication Gateway (CBG) that enables a wireless WAN subscriber with a single bill and account”, “WAN identity”, “WAN authentication infrastructure”, note that during the authentication process one or more first messages inherently are received from the authenticator server, the first messages being associated with the WLAN but not the mobile network), generating a first group of one or more call detail records from the received first messages, the call detail records being of a second type associated with the mobile network (FIGS. 9-10, and paragraphs 0228-0231, “CBG generates GPRS-compatible usage information”); and sending the first group of call detail records to the gateway (FIGS. 9-10, and paragraphs 0228-0231, “This is sent to a GPRS charging gateway”).

Referring to claim 16, Kalavade discloses the authentication server of claim 14 wherein the mapping system further comprises instructions for receiving one or more second messages of the first type from the access point; generating a second group of one or more CDRS from accounting information contained in the one or more second messages; and sending the second group of one or more CDRS to the charging gateway (FIGS. 9-10, and paragraphs 0228-0231, note that the connection is set up to calculate billings for the user terminal, hence, every time a billing related activity takes place,

Art Unit: 2687

another message is transmitted by access point, which would inherently generate more CDRS from the accounting information contained the messages, and sending the new CDRS to the charging gateway. Further note that during authentication process second messages of the first type from the access point are inherently sent to the authentication server).

Referring to claim 17, Kalavade discloses the authentication server of claim 16 wherein the mapping system further comprises instructions for receiving one or more third messages of the first type from the access point; generating a third group of one or more CDRS from accounting information contained in the one or more third messages; and sending the third group of one or more CDRS to the charging gateway (FIGS. 9-10, and paragraphs 0228-0231, note that the connection is set up to calculate billings for the user terminal, hence, every time a billing related activity takes place, another message is transmitted by access point, which would inherently generate more CDRS from the accounting information contained the messages, and sending the new CDRS to the charging gateway, and each).

Referring to claim 18, Kalavade discloses the authentication server of claim 14 whereby the charging gateway is configured for forwarding the first group of one or more of the CDRS to an accounting system of the mobile network (FIGS. 9-10, and paragraphs 0207-0210 and 0228).

Referring to claim 19, Kalavade discloses the authentication server of claim 14 further comprising a configuration file and wherein the instructions for generating a first group of one or more call detail records includes instructions for obtaining some parameters from the account information contained in the one or more first messages in real time and instruction for internally generating other parameters from the configuration file (FIGS. 9-10, 0068, 0070, 0089, 0095, note that authentication is performed, hence there is a configuration file where instructions for generating a first group of one or more call detail records that includes instructions for obtaining some parameters from the account information contained in the one or more first messages in real time and instruction for internally generating other parameters from the configuration file).

Referring to claim 20, Kalavade discloses the authentication server of claim 14 wherein the mobile network is a packet data Network (paragraphs 0005, 0054 and 0059, "GSM/GPRS").

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2687

6. Claims 4-6, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalavade et al., U.S. Pub. No. 2003/0051041 A1, in view of Madour et al, U.S. Pub. No. 2004/0048600 A1.

Referring to claim 4, Kalavade discloses the system of claim 3.

Kalavade does not specifically disclose the generation means is triggered by receiving a RADIUS Accounting Status (start) message at the wireless integrated node.

Madour discloses the generation means is triggered by receiving a RADIUS Accounting Status (start) message (FIG. 5, and paragraphs 0044, 0046, and 0048, "Accounting Start message to the HAAA/PPS 200 . . . In action 602, the HAAA/PPS 200 may allocate a first Prepaid Duration Quota").

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the system of Kalavade by providing the generation means to be triggered by receiving a RADIUS Accounting Status (start) message, as suggested by madour, at the wireless integrated node, motivation being for the purpose of providing accurate and complete accounting information.

Referring to claim 5, Kalavade discloses the system of claim 3.

Kalavade does not specifically disclose the generation means is triggered by receiving a RADIUS Accounting Status (**interim**) message at the wireless integrated node.

Madour discloses the generation means is triggered by receiving a RADIUS Accounting Status (**interim**) message (paragraphs 0044, 0046, 0048 and 0050, "using Account Interim messages instead").

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the system of Kalavade by providing the generation means to be triggered by receiving a RADIUS Accounting Status (**interim**) message, as suggested by madour, at the wireless integrated node, motivation being for the purpose of providing accurate and complete accounting information.

Referring to claim 6, Kalavade discloses the system of claim 3.

Kalavade does not specifically disclose the generation means is triggered by receiving a RADIUS Accounting Status (**stop**) message at the wireless integrated node.

Madour discloses the generation means is triggered by receiving a RADIUS Accounting Status (**stop**) message (paragraphs 0044, 0046, 0048 and 0049, “stop message”).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the system of Kalavade by providing the generation means to be triggered by receiving a RADIUS Accounting Status (**stop**) message, as suggested by Madour, at the wireless integrated node, motivation being for the purpose of providing accurate and complete accounting information.

Referring to claim 10, Kalavade discloses the method of claim 7.

Kalavade does not specifically disclose receiving a RADIUS **interim** message from the access point, generating a second CDR from accounting information contained in the RADIUS **interim** message sending the second CDR to the charging gateway.

Madour discloses receiving a RADIUS **interim** message, generating a CDR from accounting information contained in the RADIUS **interim** message.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Kalavade by providing receiving a RADIUS **interim** message, generating a CDR from accounting information contained in the RADIUS **interim** message, as suggested by Madour, in order to enable the method of Kalavade for receiving a RADIUS **interim** message from the access point, generating a second CDR from accounting information contained in the RADIUS **interim** message sending the second CDR to the charging gateway, motivation being for the purpose of providing accurate and complete accounting information.

Referring to claim 12, Kalavade discloses the method of claim 7.

Kalavade does not specifically disclose receiving a RADIUS **stop** message from the access point; generating a **stop** CDR from accounting information contained in the RADIUS **stop** message; and sending the **stop** CDR message to the charging gateway.

Madour discloses receiving a RADIUS **stop** message and generating a **stop** CDR from accounting information contained in the RADIUS **stop** message (paragraphs 0044, 0046, 0048 and 0049, “stop message”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Kalavade by providing receiving a RADIUS **stop** message and generating a **stop** CDR from accounting information contained in the RADIUS **stop** message, as suggested by Madour, enabling the method of Madour for receiving a RADIUS **stop** message from the access point; generating a **stop** CDR from

Art Unit: 2687

accounting information contained in the RADIUS **stop** message; and sending the **stop** CDR message to the charging gateway, motivation being for the purpose of providing accurate and complete accounting information.

7. Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalavade et al., U.S. Pub. No. 2003/0051041 A1, in view of Cobo et al, U.S. Patent No. 6,496,690 B1.

Referring to claim 9, Kalavade discloses the method of claim 7.

Kalavade does not specifically disclose **periodically** sending additional CDRS to the charging gateway during the course of the association with the access point.

Cobo discloses **periodically** sending additional CDRS to the charging gateway during the course of the association with the access point (Abstract, and col. 2, lines 23-57, "periodically send partial CDRs").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Kalavade by providing **periodically** sending additional CDRS to the charging gateway during the course of the association with the access point, as suggested by Cobo, motivation being for the purpose of keeping an accurate and complete accounting record.

Referring to claim 15, Kalavade discloses the authentication server of claim 14 wherein the one or more first messages are associated with a client of the WLAN and the mapping (FIGS. 9-10, paragraphs 0089 and 0095).

Kalavade does not disclose instructions for **periodically** sending additional call detail records to the charging gateway while the client is using the WLAN.

Cobo discloses instructions for **periodically** sending additional call detail records to the charging gateway while the client is using the WLAN (Abstract, and col. 2, lines 23-57, "periodically send partial CDRs").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Kalavade by providing **periodically** sending additional call detail records to the charging gateway while the client is using the WLAN, as suggested by Cobo, motivation being for the purpose of keeping an accurate and complete accounting record.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kalavade et al., U.S. Pub. No. 2003/0051041 A1, in view of Baldwin et al, U.S. Pub. No. 2003/0149746 A1.

Referring to claim 13, Kalavade discloses the method of claim 7.

Kalavade does not specifically disclose the step of generating the first CDR includes obtaining some parameters for the first CDR from the account information contained in the RADIUS start message **in real time** and internally generating other parameters for the first CDR from a configuration file.

Art Unit: 2687

Baldwin discloses the step of generating Real-time accounting records on the RADIUS server.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the system of Kalavade by providing generating Real-time accounting records on the RADIUS server, as suggested by Baldwin, to enable the system of Kalavade to provide the step of generating the first CDR to include obtaining some parameters for the first CDR from the account information contained in the RADIUS start message **in real time** and allow internally generating other parameters for the first CDR from a configuration file, motivation being for the purpose of providing complete and up-to-date accounting records.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kalavade et al., U.S. Pub. No. 2003/0051041 A1, in view of Madour et al, U.S. Pub. No. 2004/0048600 A1, and further in view of Gonthier, U.S. Pub. No. 2002/0116338 A1.

Referring to claim 11, the combination of Kalavade/Madour disclose the method of claim 10.

The combination of Kalavade/Madour does not specifically disclose **continually** receiving additional RADIUS interim messages; generating additional CDRS from accounting information contained in the additional RADIUS interim messages; and sending the additional CDRS to the charging gateway.

Art Unit: 2687

Gonthier discloses **continually** receiving additional RADIUS interim messages (paragraph 0042, "the access server 3 may send one or more Accounting Interim messages").

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Kalavade/Madour by providing **continually** receiving additional RADIUS interim messages, as suggested by Gonthier, to enable the system of Kalavade/Madour to provide generating additional CDRS from accounting information contained in the additional RADIUS interim messages; and sending the additional CDRS to the charging gateway, motivation being for the purpose of providing an accurate and complete accounting system.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ala-Laurila et al, U.S. Pub. No. 2003/0157926 discloses a billing system in a packet data network.

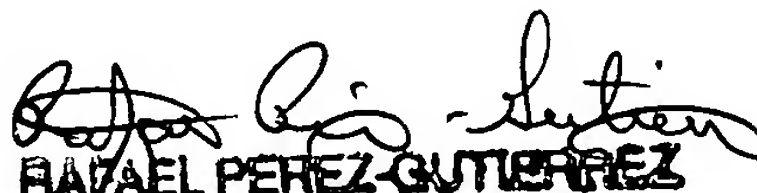
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid, can be reached at (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

Art Unit: 2687

information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


RAFAEL PEREZ-GUTIERREZ
PATENT EXAMINER
2/2/05